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## ABSTRACT OF THE DISCLOSURE

A system and a method for providing an emulated network including a plurality of emulated networking devices, which a number of network node executable images are employed. Each of the network node executable images corresponds to one of the emulated networking devices. emulated networking devices represent physical networking devices, such as optical switches. A portion of each of the network node executable images is operable to without modification on a physical networking device. of the network node executable images includes a number of program components, such as a topology related program component for maintaining a representation of the topology of the emulated network, a trunk manager program component for maintaining at least one emulated trunk between the corresponding emulated networking device and an adjacent other emulated networking device, and a circuit manager program component operable to maintain at least one emulated circuit between the corresponding emulated networking device and another one of the emulated networking devices. numbers of network node executable images may be executed on a single emulator machine, and multiple emulator machines may be employed to execute a single network node executable image.

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